Installing Xbox 360 Red Ring of Death Fix Kit

Tools used in this guide

- Xbox 360 Red Ring of Death Fix Kit (1)

Use this guide to install iFixit's Red Ring of Death Fix Kit.

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Step 1 - Hard Drive

- Grasp the hard drive assembly and press the release button while lifting its front edge.
- Remove the hard drive assembly from the top vent.

Step 2 - Bottom Vent

- Stand the console vertically with the bottom edge facing up.

- Insert the flat end of a spudger or the edge of an Xbox 360 opening tool into the small gap at the front edge of the bottom vent.
- Pry the front edge of the bottom vent away from the faceplate.

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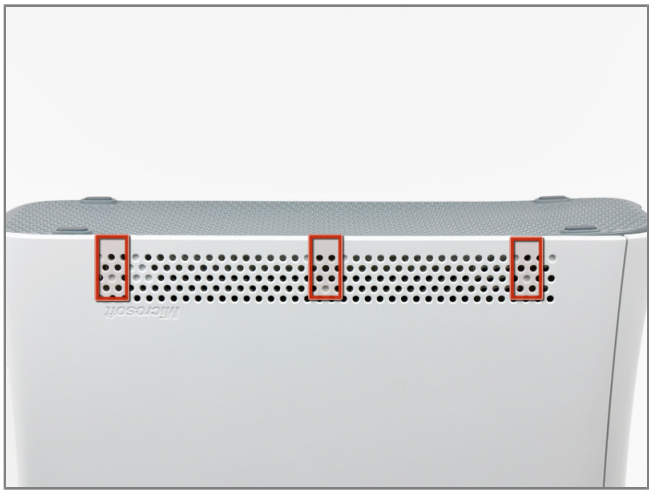

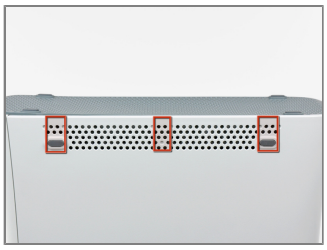

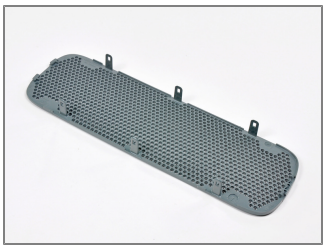

Step 3

- In the next few steps, you will use the tip of a spudger or the finger of an Xbox 360 opening tool to release the clips along the left and right sides of the bottom vent. Their locations are highlighted in red.

Step 4

- To release the clips, work from the front edge of the bottom vent.
- While slightly lifting the front edge of the bottom vent, use the tip of a spudger to push the clips closest to the front of the bottom vent towards the inside of the console.

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Step 5

- Repeat the same process to release the two center clips on the bottom vent.

Step 6

- Use the tip of your spudger to release the clips on the bottom vent nearest the back of the Xbox.

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Step 7

- Remove the bottom vent from the 360.

Step 8 - Faceplate

- Insert the edge of a spudger between the faceplate and the outer casing near the power button.
- Run your spudger along the edge of the faceplate to release the clips securing it to the front of the console.

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Step 9

- Repeat the same motions as previously mentioned to release the left side of the faceplate.

Step 10

- Remove the faceplate from the front face of the console.

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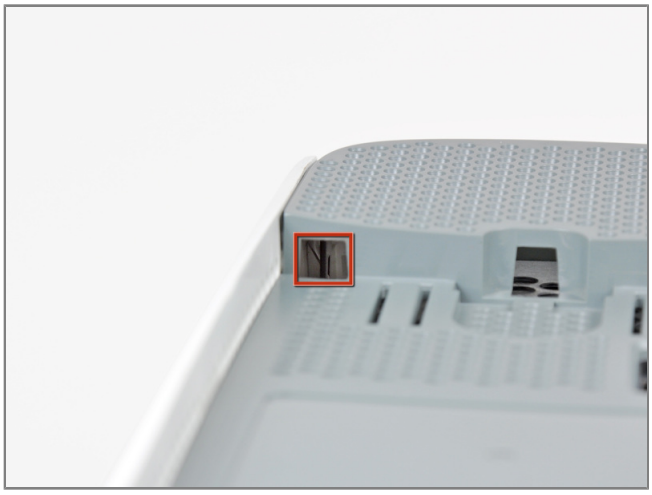
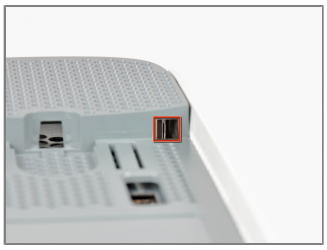
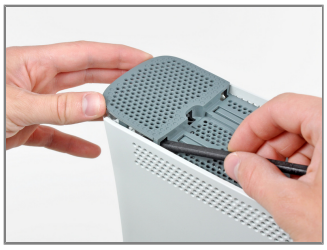




Step 11 - Top Vent

- Stand the console vertically with the top edge facing up.
- The top vent is secured to the console via clips. The first two clips are located underneath the top vent closest to the faceplate, as shown in the pictures.



Step 12

- Insert the flat end of a spudger into the small gaps previously mentioned to release the clips.

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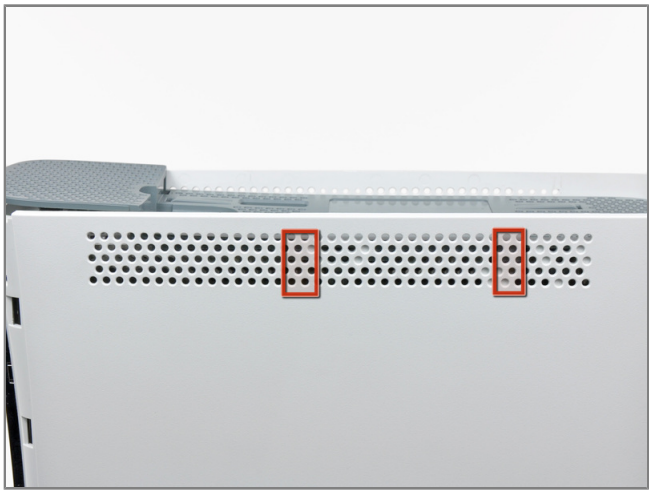
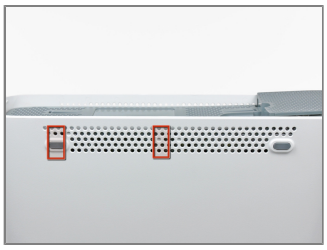
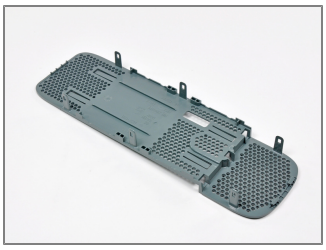
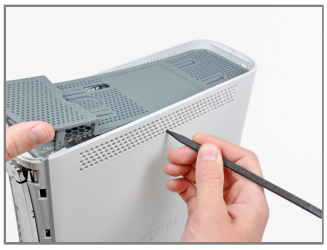






Step 13

- In the next few steps, you will use the tip of a spudger or the finger of an Xbox 360 opening tool to release the clips along the left and right sides of the top vent. Their locations are highlighted in red.



Step 14

- To release the clips, work from the middle of the top vent.
- While slightly lifting the front edge of the top vent, use the tip of a spudger to push the clips closest to the center of the top vent towards the inside of the console.

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Step 15

- Use the tip of your spudger to release the clip on the top vent nearest the back of the Xbox's upper case.

Step 16

- The last clip is hidden underneath the rubber foot nearest the back of the console.

- Use the tip of your spudger to release the clip on the top vent nearest the back of the Xbox.
- Remove the top vent from the 360.

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Step 17 - Lower Case

- To continue, you must peel the warranty sticker off the console. Be aware that this will void your console's warranty agreement with Microsoft. Proceed at your own risk.
- Carefully peel the warranty sticker off the console.

Step 18

- The upper and lower cases are attached via several latches, located in the front and back of the console. These latches must be disengaged to separate the upper case from the console.
- Use the flat end of a spudger to release the following latches:
  - Above the front-facing USB ports.
  - Beneath the front-facing USB ports.
  - Above the Memory Unit slots.

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Step 19

- Insert the flat end of a spudger and pry upwards to release the last remaining latch located above the eject button.

Step 20

- Slightly lift the front portion of the lower case to ensure that the latches in the front have been completely released.

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Step 21

- The upper and lower cases are held together by seven release latches located on the back of the console. Their locations are highlighted in red.

Step 22

- If you do not have an Xbox 360 opening tool, skip to the next step.

- Press the Xbox 360 opening tool down into the clips securing the lower case to the upper case near the I/O ports.
- While pressing down on the tool, push the lower and upper cases apart to separate the retaining clips.

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Step 23

- If you used an Xbox 360 opening tool on the previous step, skip this step.
- While pushing the upper and lower cases apart, insert the pointed end of a small metal spudger into the recesses located near the I/O ports and push downward to release each retaining clip.
- Work from the outer edge of the case inwards.

Step 24

- While pushing the upper and lower cases apart, use the tip of a spudger or the finger of an Xbox 360 opening tool to push the long clip highlighted in red toward the center of the 360.
- The clip should release, leaving the clips near the power connector as the only thing holding the upper and lower cases together.

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Step 25

- If you do not have an Xbox 360 opening tool, skip to the next step.
- Press the Xbox 360 opening tool down into the two remaining clips near the power connector.
- Push the upper and lower cases apart to fully release the retaining clips.

Step 26

- If you used an Xbox 360 opening tool on the previous step, skip this step.
- Release the latches located above the power connector using the same procedure as previously noted.

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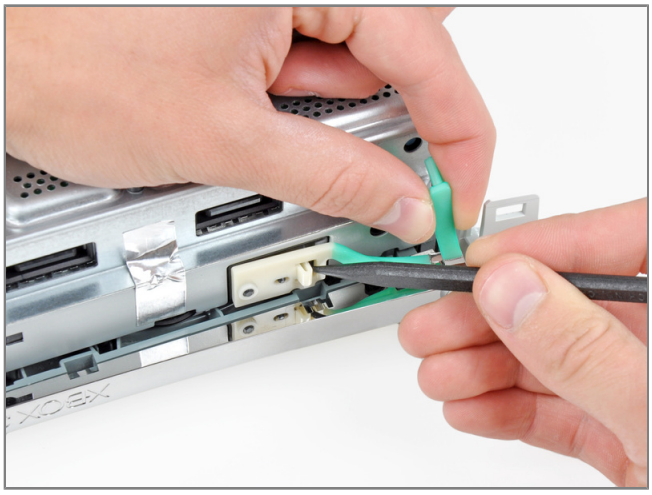
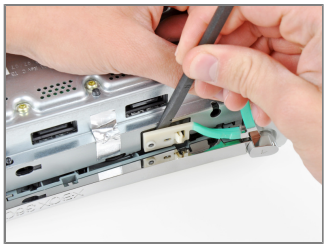
Step 27

- Orient the console so that the front portion is facing downwards.
- Grasp the back portion of the lower case and lift it upwards to separate it from the console.





Step 28 - Eject Button

- Use the tip of a spudger to release the clip securing the eject button to the metal casing.
- Insert the flat end of a spudger between the eject button and the optical drive.
- Pry the eject button off its retaining posts and remove it from the 360.

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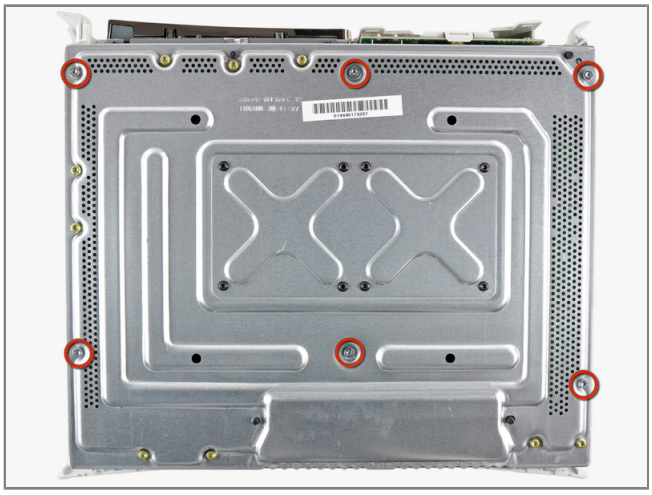

Step 29 - Upper Case

- Remove the six silver 64 mm T10 Torx screws securing the upper case to the metal casing.

Step 30

- Orient the console so that the upper case is facing upwards.
- Lift the upper case straight up and remove it from the console.

Step 31 - Optical Drive

- Peel the silver tape securing the optical drive to the metal casing.

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Step 32

- Slightly lift the optical drive upwards to gain clearance to disconnect the SATA and power connectors located on the backside of the optical drive.
- Don't try to completely remove the optical drive just yet. Two cables still connect it to the motherboard.

Step 33

- Grab the power connector by its cables and pull it straight out of its socket on the optical drive.
- Disconnect the SATA data connector from its socket on the optical drive by pulling it straight away.

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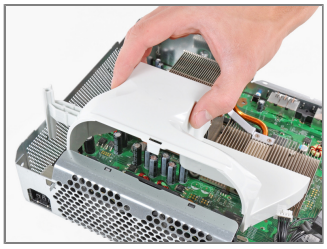
Step 34

- Lift the optical drive assembly out of the metal casing.



Step 35 - Cooling Fan Duct

- Insert the flat end of a spudger into the small rectangular opening on the top of the cooling fan duct.
- Carefully release the fan duct retaining clip and remove the fan duct from the Xbox.

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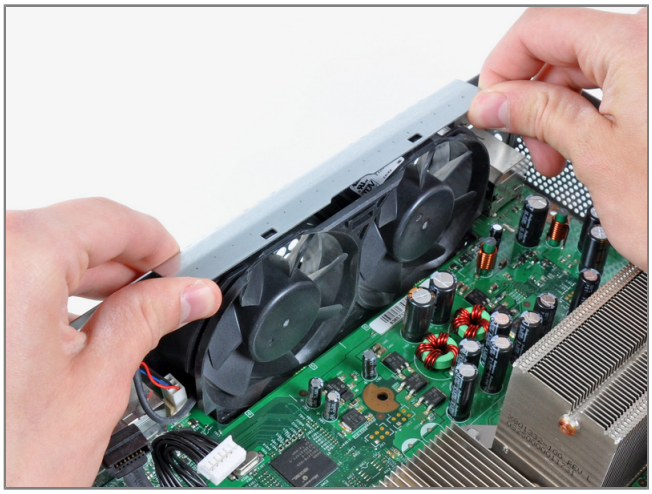
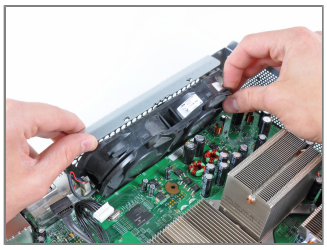
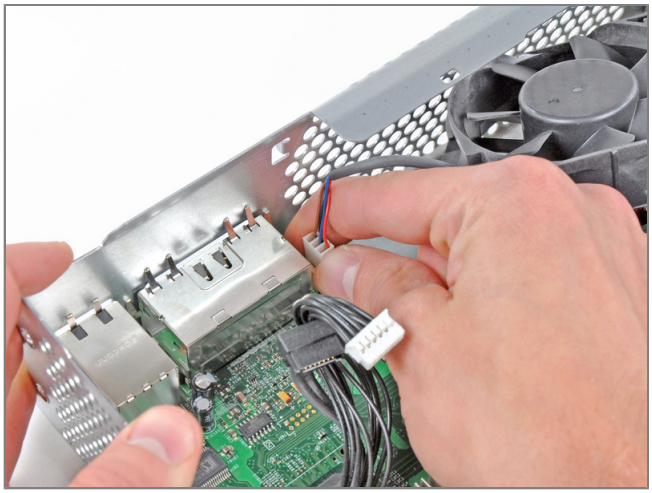




Step 36 - Dual Fans

- While lifting the metal chassis strip above the dual fans, pull the fans toward the center of the motherboard.
- Do not completely remove the dual fan assembly yet. Its cable is still attached to the motherboard.



Step 37

- Lift the dual fan connector straight up from its socket on the motherboard.
- Some fan connectors have a locking tab. If yours has a locking tab, be sure to depress it while disconnecting the fan from the motherboard.
- Remove the dual fan assembly from the console.

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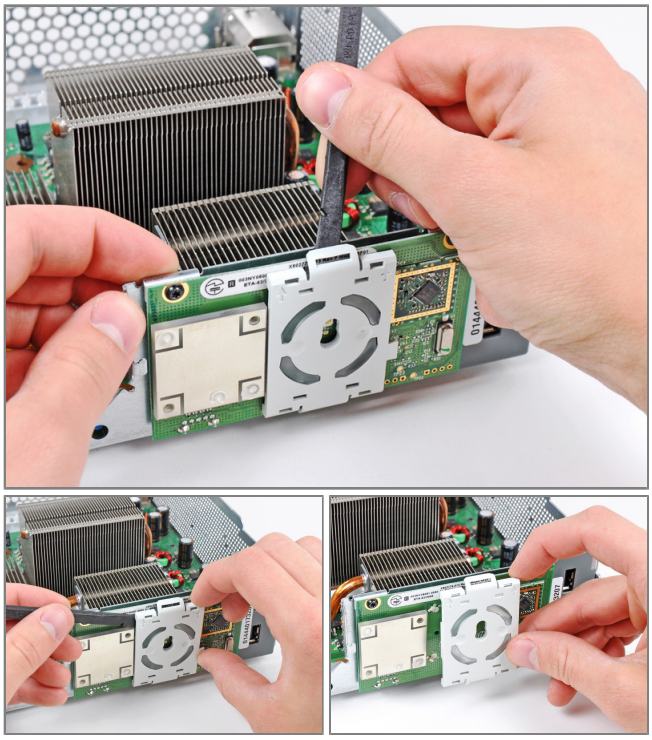
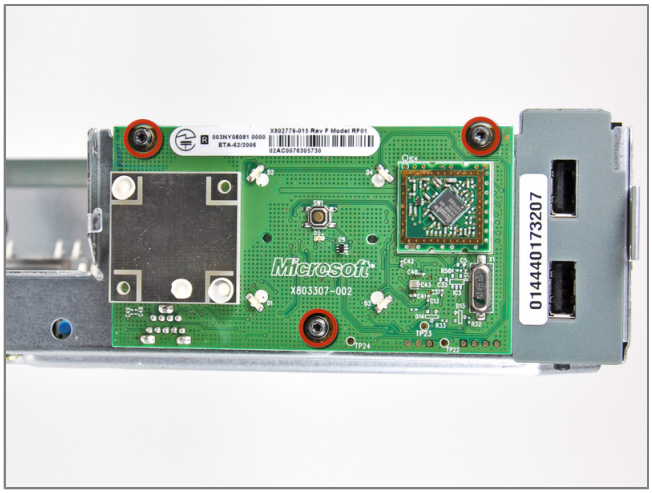


Step 38 - Motherboard

- Use the flat end of a spudger to release the clips securing the RF module shield along the top and the left edge of the RF module.
- Lift and remove the RF module shield from the console.



Step 39

- Remove three 5.6 mm T8 Torx screws securing the RF module to the metal chassis.

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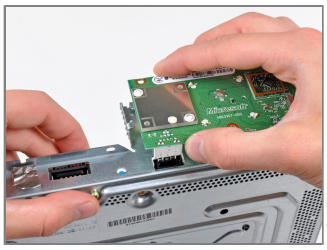
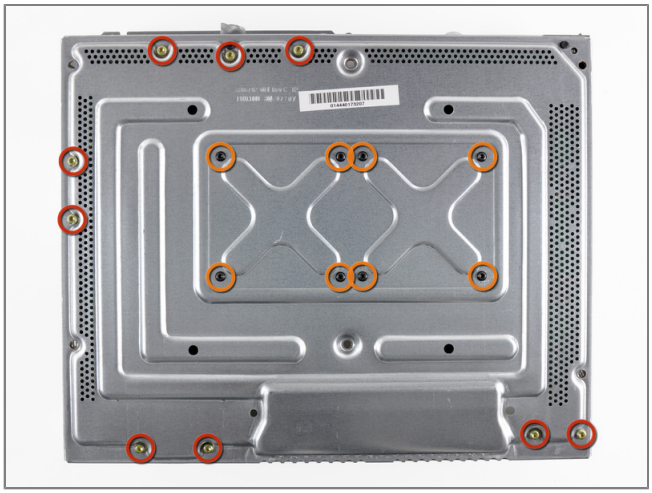


Step 40

- Grasp the RF module and lift it straight up to disconnect it from its socket on the motherboard.
- Remove the RF module from the console.



Step 41

- Remove the following screws securing the motherboard to the metal casing:
  - Nine gold 11 mm T10 Torx screws.
  - Eight black 5.6 mm T8 Torx screws.

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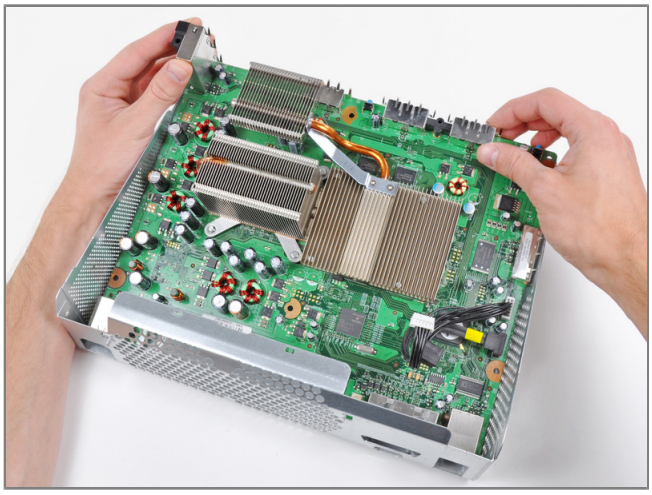
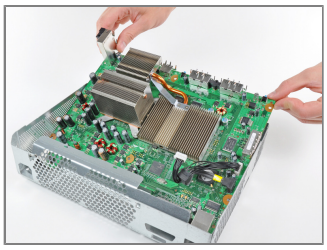
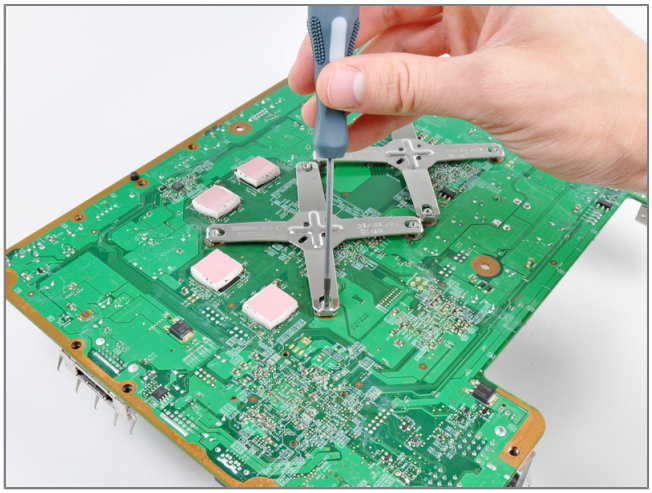




Step 42

- Lift the motherboard assembly from its front edge.
- Be careful not to damage the sockets as you rotate the motherboard away from the metal casing.
- Remove the motherboard assembly from the metal casing.



Step 43 - GPU Heat Sink

- Insert the tip of a small flathead screwdriver between the X clamp and its retaining post on the heat sink.
- Pry the X clamp away from its retaining post until it is lifted above the small groove cut into the retaining post.

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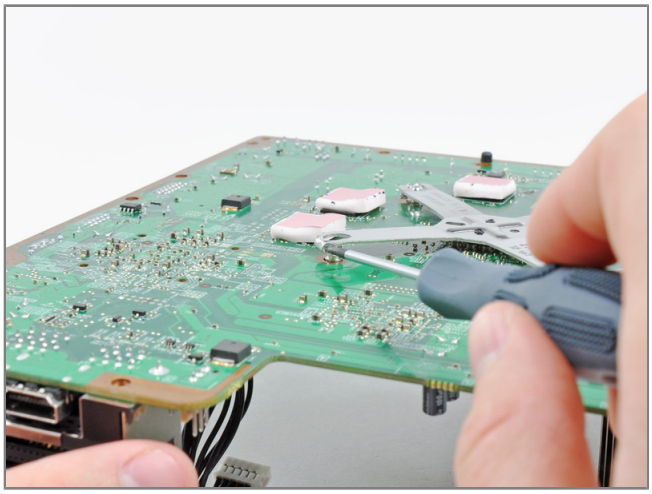
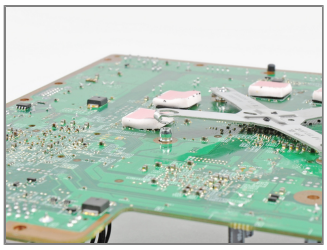
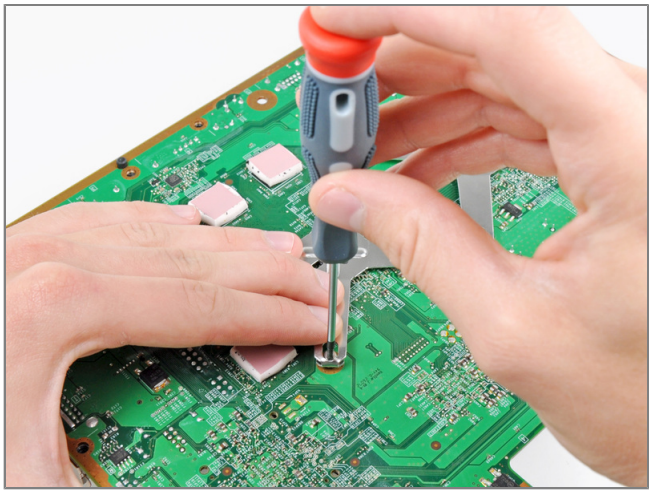




Step 44

- Insert your screwdriver parallel to the motherboard between the X clamp and its retaining post.
- Twist the screwdriver to fully release the X clamp from its retaining post.
- Repeat this process for all four corners of the X clamp.
- When removing the last corner of the X clamp and holding the motherboard upside down, be sure to catch the GPU heat sink to avoid damage from it falling.



Step 45

- To reinstall the X clamp, first start by attaching two corners to the posts on the heat sink.
- While holding the third arm of the X clamp down against the post attached to the heat sink, use a small flathead screwdriver to pry the X clamp away from the heat sink post.
- As you pry, press down on the arm of the X clamp until you "walk" it down into the retaining groove cut into the post attached to the heat sink.
- Repeat this process for the fourth arm of the X clamp.

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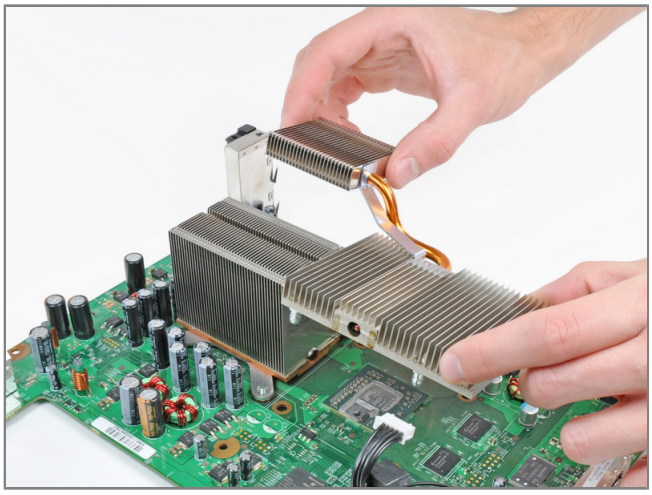
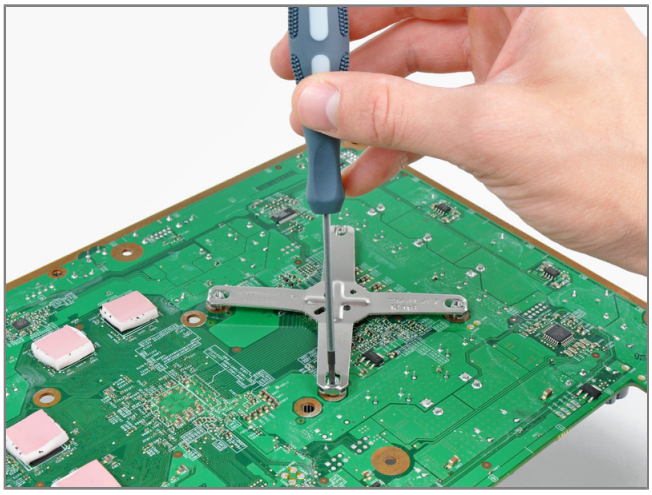
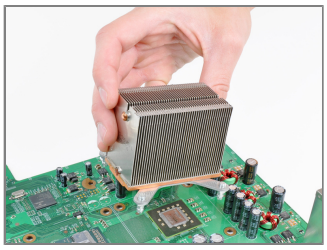


Step 46

- Remove the GPU heat sink.
- Before reinstalling the GPU heat sink, be sure to apply a new layer of thermal paste.
- If you need to mount the heat sink back onto the motherboard, we have a thermal paste guide that makes replacing the thermal compound easy.





Step 47 - CPU Heat Sink

- Insert the tip of a small flathead screwdriver between the X clamp and its retaining post on the heat sink.
- Pry the X clamp away from its retaining post until it is lifted above the small groove cut into the retaining post.
- If necessary, insert your screwdriver parallel to the motherboard between the X clamp and its retaining post. Twist the screwdriver to fully release the X clamp from its retaining post.
- Repeat this process for all four corners of the X clamp.
- When removing the last corner of the X clamp and holding the motherboard upside down, be sure to catch the CPU heat sink to avoid damage from it falling.
- Remove the CPU heat sink from the motherboard.

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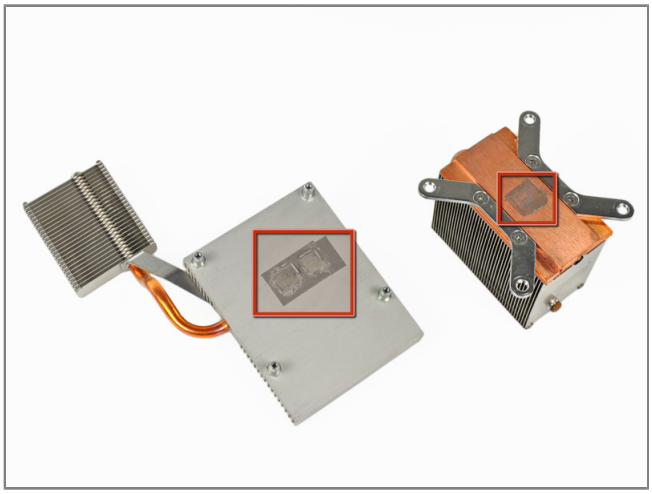
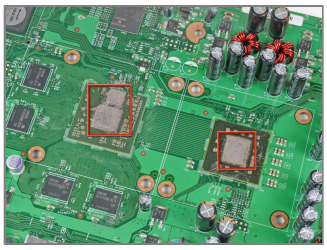
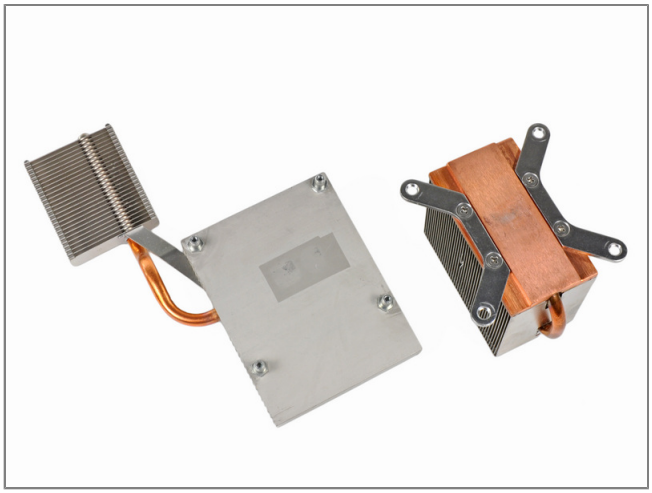
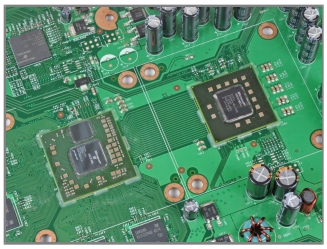




Step 48 - Red Ring of Death Fix Kit

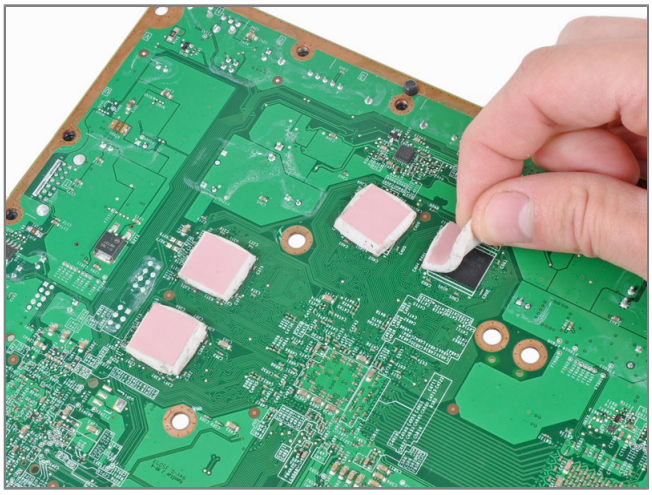
- Now that the heat sinks are off both processors, clean all the old thermal paste residue off the faces of both processors and the inner faces of the heat sinks.
- Work slowly as you remove the old residue, as many sensitive components are soldered near the face of the processors and if broken, you need a whole new motherboard
- It is helpful to use a solvent such as "Goof Off" to dissolve the old thermal paste.
- Now is also a good time to clean any dust out from between the fins of both heat sinks.





Step 49

- After cleaning, the mating faces of the heat sinks and the processors should look as shown.

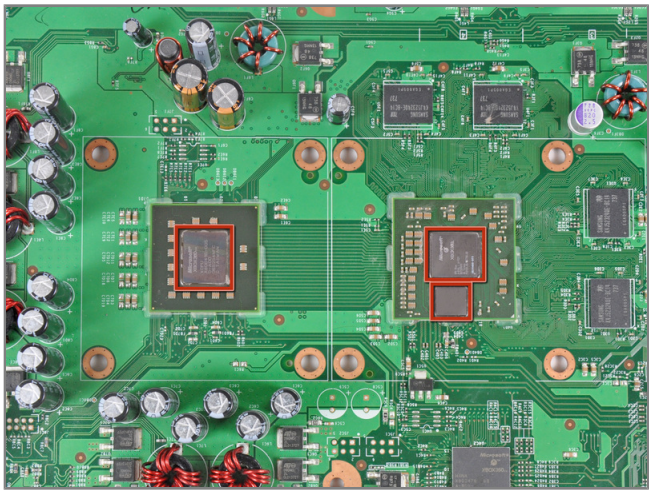


Step 50

- Flip the motherboard over.
- If your motherboard does not have RAM chips on its underside like the board pictured, skip this step.
- Peel off the four silicone thermal pads stuck to the RAM chips on the bottom of the board.

Step 51

- Use the 1/4" drive end of the included 6-in-1 screwdriver with no bit inserted to remove the four X-clamp posts from both the CPU and GPU heat sinks.



Step 52

- Apply a thin layer of thermal paste to the areas highlighted in red.
- If you have never applied thermal paste, we have a guide that makes it easy.
- After applying thermal paste to the processors, it is time to reattach the heat sinks one at a time. In our case, we attached the CPU heat sink first.

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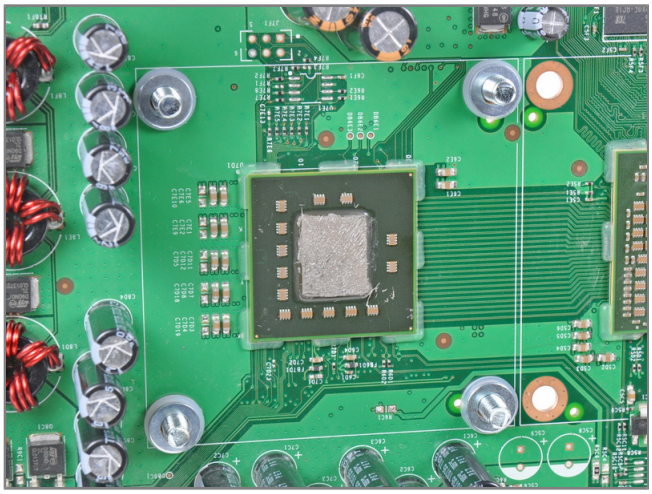
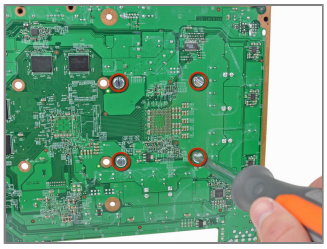
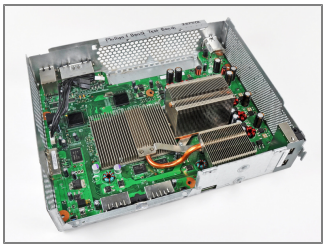
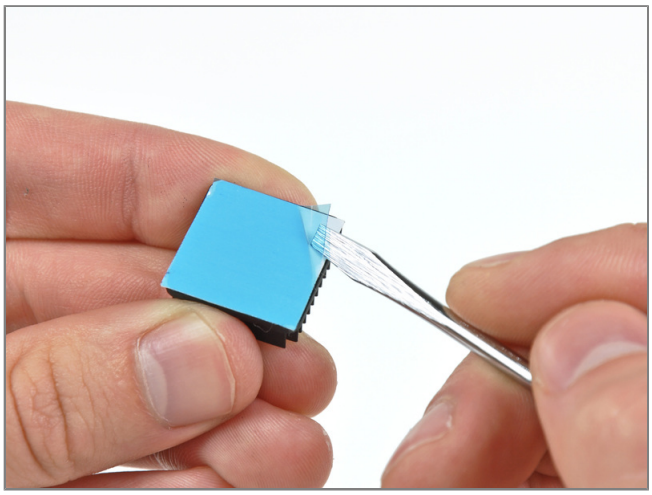


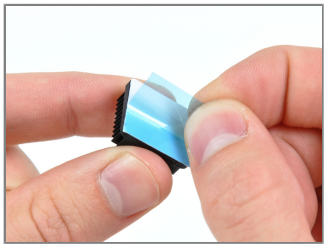




Step 53

- Insert a machine screw through each of the four holes around the CPU heat sink, with their heads on the back side of the board.
- While holding the head of the screw, place a nylon washer **then** a metal washer over the threads.
  - The order of the washers is important. **Do not** put the metal washer on first.
- Using the large flathead screwdriver bit, thoroughly tighten the screws into the CPU heat sink. Don't be afraid of over-tightening the screws.
- When attaching the CPU heat sink, be sure the fins are aligned with the air flow from the fans (as seen in the third picture). Having the flat side of the fins perpendicular to the air flow will cause your Xbox 360 to overheat.
- Repeat the same process to attach your GPU heat sink.





Step 54

- Use the edge of your small flathead screwdriver or another thin and sharp object to carefully pull up a corner of the blue plastic sheet covering the adhesive on the bottom of both heat sinks.
- Be careful not to wrinkle or peel up the adhesive in the process.
- Peel the protective sheets off the adhesive on both heat sinks.

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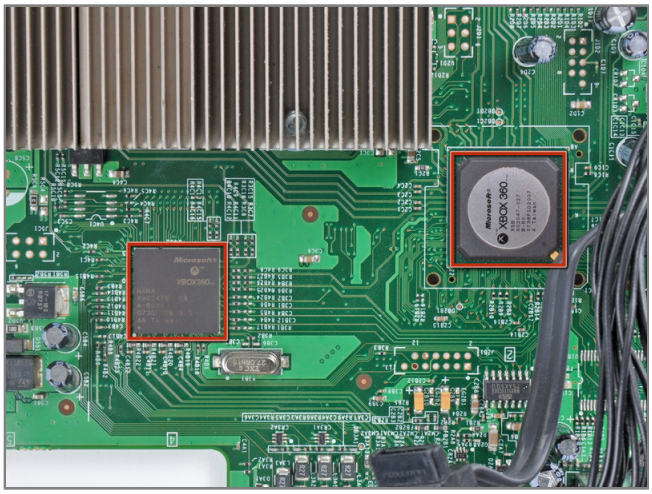

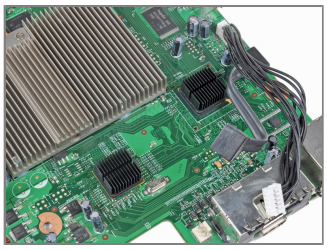

Step 55

- Lightly clean the surface of the two chips highlighted in red on the first picture.
- Be sure to position the heat sinks correctly before you stick them down, as the adhesive is extremely strong and sensitive to being repositioned.
- Stick the two heat sinks down against the top of the two chips highlighted in red on the second picture, being sure the fins are aligned as seen in the third picture.
- When reinstalling the optical drive, be sure both the power and SATA cables do not interfere with the heat sink attached closest to their sockets on the motherboard.

Step 56

- If your motherboard doesn't have RAM chips on its bottom face, it is not necessary to apply thermal pads.
- Remove the clear and red plastic backing material from all four thermal pads.

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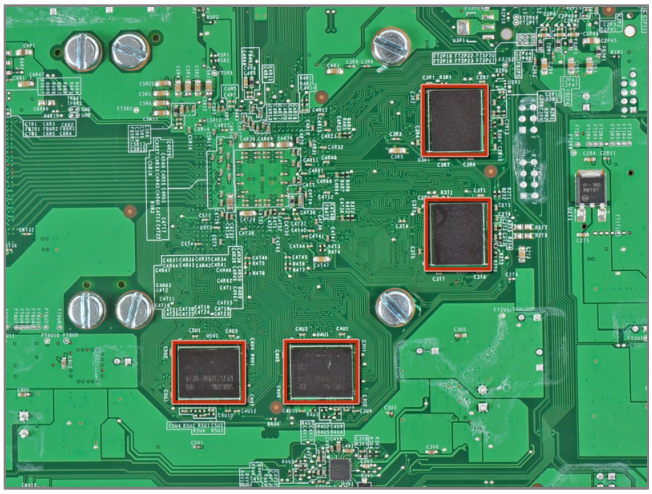

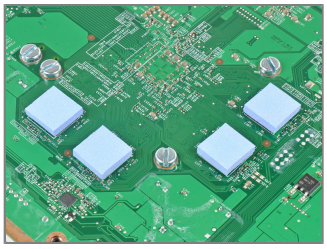

Step 57

- Stick the thermal pads down against the RAM chips on the bottom of the board.
- Reinstall the motherboard back into the chassis and reassemble your Xbox 360.

To reassemble your device, follow these instructions in reverse order.

This document was last generated on Dec 14, 2010.

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